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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application No.	09/061,017
Filing Date	April 15, 1998
First Named Inventor	Scott L. Baker
Group Art Unit	2732
Examiner Name	D. Vincent
Total Number of Pages in This Submission	9
Attorney Docket Number	042390.P5326

ENCLOSURES *(check all that apply)*

- ☒ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment / Response
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
  - ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Assignment Papers *(for an Application)*
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition Routing Slip (PTO/SB/69) and Accompanying Petition
- ☐ To Convert a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Small Entity Statement
- ☐ Request for Refund
- ☐ After Allowance Communication to Group
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☒ Appeal Communication to Group *(Appeal Notice, Brief, Reply Brief)*
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Additional Enclosure(s) *(please identify below):*

Return receipt postcard

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Robert A. Diehl, Reg. No. 40,992 BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Signature	Robert A. Diehl
Date	May 19, 2000

CERTIFICATE OF MAILING/TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class mail with sufficient postage in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on: **May 19, 2000**

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Patent fees are subject to annual revision.
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See 37 C.F.R §§ 1.27 and 1.28.

TOTAL AMOUNT OF PAYMENT ($)

Complete if Known	
Application No.	09/061,017
Filing Date	April 15, 1998
First Named Inventor	Scott L. Baker
Examiner Name	D. Vincent
Group/Art Unit	2732
Attorney Docket Number	042390.P5326

METHOD OF PAYMENT (check one)

1. ☐ The Commissioner is hereby authorized to charge indicated fees to:
☒ The Commissioner is hereby authorized to credit any over payments to:

Deposit Account Number: 02-2666

Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

☒ Charge Any Additional Fees Required Under 37 CFR §§ 1.16,1.17, 1.18 and 1.20.

2. ☐ Payment Enclosed:
☐ Check ☐ Money Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
101	690	201	345	Utility filing fee	
106	310	206	155	Design filing fee	
107	480	207	240	Plant filing fee	
108	690	208	345	Reissue filing fee	
114	150	214	75	Provisional filing fee	

SUBTOTAL (1) ($)

2. EXTRA CLAIM FEES

			Extra Claims		Fee from below	Fee Paid
Total Claims		-	=	X	=	
Independent Claims		-	=	X	=	
Multiple Dependent					=	

***or number previously paid, if greater, For Reissues, see below*

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description
103	18	203	9	Claims in excess of 20
102	78	202	39	Independent claims in excess of 3
104	260	204	130	Multiple Dependent claim, if not paid
109	78	209	39	**Reissue independent claims over original patent
110	18	210	9	**Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) ($)

FEE CALCULATION (continued)

3. ADDITIONAL FEE

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet.	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for reexamination	
112	920*	112	920*	*Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	*Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for response within first month	
116	380	216	190	Extension for response within second month	
117	870	217	435	Extension for response within third month	
118	1,210	218	680	Extension for response within fourth month	
128	1,850	228	925	Extension for response within fifth month	
119	300	219	150	Notice of Appeal	
120	300	220	150	Filing a brief in support of an appeal	
121	260	221	130	Request for oral hearing	
138	1,510	138	1510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,210	241	605	Petition to revive - unintentional	
142	1,210	242	605	Utility issue fee (or reissue)	
143	430	243	215	Design issue fee	
144	580	244	290	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Petitions related to provisional applications	
126	240	126	240	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	790	246	395	Filing a submission after final rejection (37 CFR 1.129(a))	
149	790	249	395	For each additional invention to be examined (37 CFR 1.129(b))	

Other fee (specify) _____
Other fee (specify) _____

* Reduced by Basic Filing Fee Paid **SUBTOTAL (3)** ($)

SUBMITTED BY				Complete (if applicable)	
Typed or Printed Name	Robert A. Diehl			Reg. Number	40,992
Signature	Robert A. Diehl	Date	05/19/00	Deposit Account User ID	02-2666

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of:

Baker

Serial No.: 09/061,017 — Art Unit: 2732

Filed: April 15, 1998

Examiner: D. Vincent

For: METHOD AND APPARATUS FOR INTERLEAVING A DATA STREAM

Honorable Director of
Patents and Trademarks
Washington, D.C. 20231

REPLY BRIEF
IN SUPPORT OF APPELLANT'S APPEAL
TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

Dear Sir:

Pursuant to 37 C.F.R. §193(b)(1), Appellants hereby reply to the Examiner's Answer dated March 21, 2000.

Claims 1-19 are the subject of the appeal. The Examiner has maintained his rejection of all claims. Claims 1-3, 6-9 and 11-19 stand rejected under U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,291,485 by Afify et al. ("Afify"). Claims 4, 5 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Afify as applied to claim 1, and further in view U.S. Patent No. 5,825,772 by Dobbins et al. ("Dobbins").

All arguments in Appellant's Appeal Brief ("Appeal Brief"), filed January 28, 2000, are herein incorporated into this Reply Brief to the Examiner's Answer.

Applicant respectfully notes that the Examiner has failed to comply with MPEP § 2144.03 with regard to his taking of official notice regarding the term "bursts" in the Office Action mailed on May 11, 1999. As allowed by this section of the MPEP, Applicant seasonably traversed the Examiner's characterization of this term in the response mailed on August 6, 1999. In this respect, MPEP § 2144.03 specifically states that **"[i]f the**

applicant traverses such an assertion the examiner should cite a reference in support of his or her position." It is respectfully asserted that the Examiner has failed to provide such a reference. Therefore, for purposes of this appeal, the Examiner's characterization of the term "bursts" is unsupported and should not be considered.

Before proceeding on the merits of the new arguments provided by the Examiner, Appellant respectfully asserts that even were the Board to accept as true, all of the assertions in the Examiner's reply, which are, of course, not conceded, the Examiner has still failed to establish a prima facie case of obviousness under 35 U.S.C. § 103(a). Specifically in this regard, as was addressed in the Appeal Brief, the cited patent would not suggest the subject matter of the rejected claims to one of ordinary skill in the art. As was discussed in the Appeal Brief, Afify is directed to translating from one virtual tributary (VT) format into a second virtual tributary format in high-speed telephony. In this respect, the portions of Afify relied on by the Examiner, and that patent as a whole, are directed at converting high-speed telephony data in one synchronous transport signal (STS) format into another STS format. STS and VT formats are, respectively, at a high level, signals of various frequencies and paths for transmitting such signals. The subject matter of Afify is directed at converting an STS of one frequency to an STS of a second frequency. Therefore, as Appellant previously stated in the Appeal Brief, **converting from one VT or STS format to another VT or STS format would not teach or suggest interleaving a data stream as recited, for example, in claim 1.**

Appellant now addresses the merits of the new arguments put forth by the Examiner in the Examiner's Answer to the Appeal Brief, in Section 11 entitled "Response to Argument."

The Examiner states, on pages 9-10:

> [C]learly the Appellant's invention is related to multiplexing and class 370 is titled "Multiplex Communications...The applied art of record (Afify) is currently classified in class 370 subclass 537 which is titled Multiplexing Plural Input Channels To A Common Output Channel. Therefore it is clear that Afify is definitely analogous art...

Appellant respectfully asserts that this assertion by the Examiner is improper. Case law has clearly established a two-prong test for analogous art as was addressed in the Appeal Brief. In this test it is first determined whether the patent is within the field of the inventor's endeavor. If it is not within the field of endeavor, it must then be determined if the patent is reasonably related to the particular problem facing the inventor.

In making these determinations of analogy, courts have treated such classification evidence somewhat skeptically. In this regard the court in In re Mlot-Fijalkowski, 213 USPQ 713, 715 n. 5 (CCPA 1982), stated:

> While we find the diverse Patent Office classification of the references to be some evidence of "non-analogy," and likewise find the cross-reference in the official search notes to be some evidence of "analogy," we consider the similarities and differences in structure and function of the inventions disclosed in the references to carry far greater weight. Such evidence is inherently weak also, because considerations in forming a classification system differ from those relating to a person of ordinary skill seeking solution for a particular problem. *Citing* In re Ellis, 177 USPQ 526 (CCPA 1973).

In this respect, the fact that Afify is directed to VT transformation in synchronous optical networks (SONETs) for high-speed telephony and the invention is directed to interleaving data streams in, for example, Ethernet compliant networks carries far greater weight. As was stated in Applicant's Appeal brief, because Afify is directed at ANSI standard T1.105, it would not commend itself to one addressing the problem of interleaving data streams, such as in a system that is compliant with the Ethernet standard or any similar standard. That is, the considerations of one seeking a solution to the problems addressed by the invention would be different than one seeking to transform VTs in a SONET. Therefore, based on the foregoing and the arguments set forth in this regard on the Appeal Brief, Appellant respectfully assert that Afify is not analogous to the present invention, contrary to the Examiner's assertion.

Further, in similar regard the Examiner states, on pages 10-11, that:

> It does not matter whether the data being multiplexed came from a video, audio, or text source. It also does not matter where the source was located at the time of transmitting the data. Whether the data came from a PC connected to an Ethernet LAN, like one might find at the PTO, or whether the data came from some type of telephone line also does not matter.

Appellant respectfully disagrees with this assertion by the Examiner as it sweeps too broadly. On its face, the Examiner's argument stands for the proposition that any area of art in which data is being multiplexed would be properly applied in making a determination of obviousness. **This assertion by the Examiner, based merely on the fact that a particular configuration employs some form of multiplexing data, sweeps far too broadly and is inconsistent with well settled law with respect to obviousness determinations under 35 U.S.C. § 103.**

Examination of the specific examples cited by the Examiner is illustrative of this assertion. For example, in the case of audio or video, electrical data for these media may exist in any number of formats. In this regard, the information for such media may be in the form of analog signals, radio frequency (RF) waves or any number of audio/video digital compression formats. One faced with the problem of multiplexing or format conversion of such information would certainly be faced with unique issues depending on the particular embodiment at issue. **In this regard, the second prong of the test applied by the courts requires that applied art be reasonably pertinent to the particular problem being solved. With his assertion, the Examiner is analyzing the relevance of Afify from the standpoint of the solution and not the particular problem being solved.** Therefore, Appellant respectfully asserts that this assertion by the Examiner is improper.

The Examiner cites In re McLaughlin, 170 USPQ 209 (CCPA 1971) in response to Appellant's assertion in the Appeal Brief that the Examiner's rejection is based on impermissible hindsight analysis. The portion of the court's opinion cited by the Examiner specifically states, on page 212 of the opinion, that:

> [a]ny judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure, such a reconstruction is proper.

While Appellant does not disagree with the portion of the court's opinion cited by the Examiner, Appellant, nonetheless, respectfully asserts that it is unavailing to Examiner's position regarding his rejection. As was set forth in the Appeal Brief, the Examiner has merely associated the elements of claim 1 with elements selected from the figures of Afify and, therefore, used Appellant's claim as a template to fill the gaps. **With this analysis, the Examiner has "include[d] knowledge gleaned only from [Appellant's] disclosure." Therefore, this "reconstruction" by the Examiner is improper, even under the portion of the court's opinion in McLaughlin cited by the Examiner.**

The Examiner further states in his reply, on page 12, with regard to Appellant's argument in the Appeal Brief as to lack of motivation to combine Afify and Dobbins that:

> Afify discloses digital communications and telephony (col. 1). One of ordinary skill would realize that a large proportion of the telephony devices, such as computers (PCs) with sound cards and microphones are actually located in commercial buildings and it is notoriously well known that Ethernet LANs are the most popular form of digital communication inside those

building. Since VLANs are more secure, one would consider implementing the VLAN tags which go in the Ethernet frames.

Appellant respectfully asserts that this assertion by the Examiner again sweeps too broadly. The Examiner is essentially arguing that since Afify is related to digital communication and PCs communicate digitally on Ethernet compliant networks, Virtual Local Area Network (VLAN) tags as disclosed in Dobbins are, therefore, properly combinable with Afify. If this assertion by the Examiner were correct, the necessary conclusion is that it would be proper to combine Dobbins with any art directed at digital communication, regardless of the particular embodiment or the particular problem being solved. As this particular situation illustrates, this conclusion is not correct. Afify is not directed at all to Ethernet compliant networks and is specifically directed at SONETs. Therefore, **combining Dobbins with Afify is not only improper from a legal standpoint; it is also technically improper. Since Afify is directed to VT translation in SONETs and Dobbins is directed to implementing VLAN tags in packet switched networks, one of skill in the art would understand that this combination is technically incompatible. In this respect, because SONETs are a point to point protocol, they employ a contiguous data stream format, i.e. a virtual tributary, communicated over a single path. In contrast, packet switched networks are a distributed protocol and employ non-contiguous data streams, which may be transmitted over a plurality of paths. For at least this reason, the combination of Afify and Dobbins is not technically proper.** Based on the foregoing, Appellant respectfully asserts that the Examiner has failed to meet his burden with regard to motivation to combine Afify and Dobbins.

The Examiner further states that "[i]t is important to realize that both the Appellant's claimed invention and the Applied art are both concerned with multiplexing digital data streams at the physical layer (of the OSI model)." This assertion by the Examiner has not been raised at any point in the prosecution below. Therefore, Applicant has not been afforded the opportunity to respond to this assertion on the merits. If the Examiner's rejection(s) is(are) based on this assertion, it would, therefore, be improper under MPEP § 1208.01, which prohibits entry of new grounds of rejection in an Examiner's Answer.

Appellant respectfully submits that all the pending claims in this patent application are patentable and requests that the Board of Patent Appeals and Interferences overrule the Examiner and direct allowance of the rejected claims.

Respectfully submitted,

Date: May 19, 2000

Alan K. Aldous
Attorney for Appellant
Registration Number: 31,905

c/o Blakely, Sokoloff, Taylor & Zafman
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Deborah L. Higham
Name of Person Mailing Correspondence

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